

Dataset proposal

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Dataset Description:

The dataset we have selected for our project is the "COVID-19 (coronavirus) Data" from the publication "Our World in Data" compiled at the University of Oxford.

The dataset consists of historical data on the COVID-19 pandemic, with records spanning multiple countries and dates. It contains parameters such as confirmed cases, deaths, hospitalizations, testing, policy responses, vaccinations, and other related variables.

Data Source:

This dataset is collected from various official sources, including the World Health Organization (WHO) Coronavirus Records and Dashboard for confirmed cases and deaths. Additional sources used are hospitalizations, testing, policy responses, school and workplace closures, cancellation of public events, stay at-home restrictions, face coverings, travel restrictions, vaccinations, and other variables provided by different countries. The data is updated periodically to keep it up-to-date.

Data Access:

This dataset is publicly available in csv, xlsx and json format on its github page.

<https://github.com/owid/covid-19-data/tree/master/public/data>

Broad Questions and Objectives:

Vaccination Progress:

Are there any correlations between vaccination rates and the trajectory of the pandemic, such as a decrease in confirmed cases or deaths?

This question aims to investigate the relationship between vaccination rates and the trajectory of the COVID-19 pandemic. It seeks to determine whether countries with higher vaccination rates tend to experience a decrease in confirmed cases or deaths from COVID-19 compared to those with lower vaccination rates. This analysis can help assess the effectiveness of vaccination campaigns in controlling the spread of the virus and reducing its impact on public health.

Policy Responses and Their Impact:

Analyze whether specific policy interventions are associated with changes in key COVID-19 metrics.

This question focuses on understanding how specific government policy interventions have influenced key COVID-19 metrics. It involves analyzing the data to identify whether there is a correlation between the implementation of certain policies (e.g., lockdowns, mask mandates, travel restrictions) and changes in COVID-19 metrics such as confirmed cases, deaths, and hospitalizations. This analysis can provide insights into which policies have been most effective in curbing the pandemic's impact.

Hospital and ICU Capacity:

How has the availability of hospital beds and ICU facilities evolved in different countries over time?

This question aims to assess how the availability of hospital beds and ICU facilities has changed over time in different countries.

Explanation: It involves tracking the evolution of hospital and ICU capacity, including changes in the number of available beds, ventilators, and other critical resources. By examining these trends, one can gain insights into the healthcare system's ability to respond to the COVID-19 pandemic, identify potential capacity challenges during surges, and assess the impact on patient care.

Reproduction Rate Analysis:

How does the reproduction rate of COVID-19 relate to the number of cases and deaths in different places?

This question is about finding out if a place with higher reproduction rates of the virus also has higher numbers of cases and deaths. It helps us understand if and how fast the virus is spreading in different locations over time.